

## Course Culminating Task CCT – Science 10

### “Science-Fair Presentation”

#### Synopsis

Science is about exploring the world around us, and this culminating activity will allow you to explore an aspect of the world that you find interesting.

You will design and perform a scientific experiment on a topic of your choice, testing the relationship between two variables (for example: is the growth of a plant related to the amount of light it gets? Is the growth of mold related to the amount of light and moisture it gets? Is the acidity of a food related to how much Vitamin C is in it? Does music affect how fast one can learn a skill?).

In a 5-7 minute presentation, you will present your research findings to your peers.

**Stage 1:** Create a research question that you could reasonably test on your own. It should be specific and measurable.

**Due: Friday, December 9 in class**

**Stage 2:** Have an introduction, hypothesis, materials, procedure, and observation table prepared.

**Due: Friday, December 16 in class**

**Stage 3:** Carry out your experiment.

**Stage 4:** Hand in a completed lab report according to the guidelines provided. Read the rubric to see how you'll be marked!

**Due: Tuesday, January 10**

**Window of Opportunity closes on Wednesday, January 11**

**Stage 5:** Presentation Days

**Tuesday, January 10 and Wednesday, January 11**

## **Guidelines**

### **Introduction**

- Relevant background information
- Reference at least one related article/research paper/lab report
- Identifies the objective of the experiment
- Proposes the research question
- Discuss your project's relationship to a particular unit covered in SNC2D

### **Hypothesis**

- Make a prediction about your results. How will the two
- Support your prediction with an explanation of your thinking

### **Materials**

- Make a list of all items used in the lab
- Be specific about *how much* of a material you used, if applicable

### **Procedure**

- Explain (either in a paragraph or step-by-step) what you did in the lab
- Include ALL steps!
- Your procedure should be written so that anyone else could repeat the experiment

### **Observations**

- Include all data that you collected during the lab
- Be sure to record both *qualitative* and *quantitative* details
- All tables, graphs and charts should be labeled appropriately with proper units
- Enough data is collected to establish a conclusion

### **Discussion**

- Data analyzed and summarized in an easy-to-understand format (this could include, but is not limited to, graphs, diagrams and tables)
- Data is interpreted and applied to your research question
- What are some possible future applications of your findings?

### **Conclusion**

- Provide a brief summary of your findings
- Make a definite statement that answers your research question
- Did your conclusion support or refute your hypothesis? Why or why not?

### **Presentation**

- 5 to 7 minutes in length
- PowerPoint/Keynote format
- Introduce the audience to your project and your research question
- Show the audience what you found by including any applicable charts, diagrams, graphs and results
- Make a strong concluding statement that answers your research question